



SEQUENCE LISTING

<110> Silvia, Christopher
Yu, Weifeng
IOAgen, Inc.

<120> Identification and Expression of Human Kir5.1

<130> 018512-000410US

<140> US 09/623,304

<141> 2001-02-21

<150> US 60/076,612

<151> 1998-03-03

<150> WO PCT/US99/04549

<151> 1999-03-02

<160> 4

<170> PatentIn Ver.. 2.1

<210> 1

<211> 383

<212> PRT

<213> Homo sapiens

<220>

<223> human Kir5.1 alpha subunit monomer of inward
rectifier potassium channel

<220>

<221> PEPTIDE

<222> (351)..(383)

<223> tail region

<400> 1

Met	Ser	Tyr	Tyr	Gly	Ser	Ser	Tyr	His	Ile	Ile	Asn	Ala	Asp	Ala	Lys
1				5					10					15	
Tyr	Pro	Gly	Tyr	Pro	Pro	Glu	His	Ile	Ile	Ala	Glu	Lys	Arg	Arg	Ala
			20					25					30		
Arg	Arg	Arg	Leu	Leu	His	Lys	Asp	Gly	Ser	Cys	Asn	Val	Tyr	Phe	Lys
		35					40				45				
His	Ile	Phe	Gly	Glu	Trp	Gly	Ser	Tyr	Val	Val	Asp	Ile	Phe	Thr	Thr
	50					55					60				
Leu	Val	Asp	Thr	Lys	Trp	Arg	His	Met	Phe	Val	Ile	Phe	Ser	Leu	Ser
	65				70					75				80	
Tyr	Ile	Leu	Ser	Trp	Leu	Ile	Phe	Gly	Ser	Val	Phe	Trp	Leu	Ile	Ala
			85					90					95		
Phe	His	His	Gly	Asp	Leu	Leu	Asn	Asp	Pro	Asp	Ile	Thr	Pro	Cys	Val
			100					105					110		
Asp	Asn	Val	His	Ser	Phe	Thr	Gly	Ala	Phe	Leu	Phe	Ser	Leu	Glu	Thr
		115					120					125			
Gln	Thr	Thr	Ile	Gly	Tyr	Gly	Tyr	Arg	Cys	Val	Thr	Glu	Glu	Cys	Ser
	130					135					140				
Val	Ala	Val	Leu	Met	Val	Ile	Leu	Gln	Ser	Ile	Leu	Ser	Cys	Ile	Ile
	145				150					155				160	
Asn	Thr	Phe	Ile	Ile	Gly	Ala	Ala	Leu	Ala	Lys	Met	Ala	Thr	Ala	Arg
			165					170						175	

Lys Arg Ala Gln Thr Ile Arg Phe Ser Tyr Phe Ala Leu Ile Gly Met
 180 185 190
 Arg Asp Gly Lys Leu Cys Leu Met Trp Arg Ile Gly Asp Phe Arg Pro
 195 200 205
 Asn His Val Val Glu Gly Thr Val Arg Ala Gln Leu Leu Arg Tyr Thr
 210 215 220
 Glu Asp Ser Glu Gly Arg Met Thr Met Ala Phe Lys Asp Leu Lys Leu
 225 230 235 240
 Val Asn Asp Gln Ile Ile Leu Val Thr Pro Val Thr Ile Val His Glu
 245 250 255
 Ile Asp His Glu Ser Pro Leu Tyr Ala Leu Asp Arg Lys Ala Val Ala
 260 265 270
 Lys Asp Asn Phe Glu Ile Leu Val Thr Phe Ile Tyr Thr Gly Asp Ser
 275 280 285
 Thr Gly Thr Ser His Gln Ser Arg Ser Ser Tyr Val Pro Arg Xaa Ile
 290 295 300
 Leu Trp Gly His Arg Phe Asn Asp Val Leu Glu Val Lys Arg Lys Tyr
 305 310 315 320
 Tyr Lys Val Asn Cys Leu Gln Phe Glu Gly Ser Val Glu Val Tyr Ala
 325 330 335
 Pro Phe Cys Ser Ala Lys Gln Leu Asp Trp Lys Asp Gln Gln Leu His
 340 345 350
 Ile Glu Lys Ala Pro Pro Val Arg Glu Ser Cys Thr Ser Asp Thr Lys
 355 360 365
 Ala Arg Arg Arg Ser Phe Ser Ala Val Ala Ile Val Ser Ser Trp
 370 375 380

<210> 2
 <211> 1509
 <212> DNA
 <213> Homo sapiens

<220>
 <223> human Kir5.1 alpha subunit monomer of inward
 rectifier potassium channel

<220>
 <221> unsure
 <222> (1279)
 <223> n = a, g, c or t

<400> 2
 ttactactac aaaactcacc tggatcccta agggcacagc aaagaatgag ctattacggc 60
 agcagctatc atattatcaa tgcggacgca aaatacccag gctacccgcg agagcacatt 120
 atagctgaga agagaagagc aagaagacga ttacttcaca aagatggcag ctgtaatgtc 180
 tacttcaagc acatttttgg agaattggga agctatgtgg ttgacatctt caccactctt 240
 gtggacacca agtggcgcca tatgtttgtg atattttctt tatcttataat tctctcgtgg 300
 ttgatatttg gctctgtctt ttggctcata gcctttcatt atggcgatct attaaatgat 360
 ccagacatca cacttgtgtg tgacaacgtc cattctttca caggggcctt tttgttctcc 420
 ctagagaccc aaaccacatc aggatatggt tatcgtgtgt ttactgaaga atgttctgtg 480
 gccgtgctca tgggtgatcc ccagtcctatc ttaagttgca tcataaatac ctttatcatt 540
 ggagctgcct tggccaaaat ggcaactgct cgaaagagag cccaaaccat tcgtttcagc 600
 tactttgcac ttataggtat gagagatggg aagctttgcc tcatgtggcg cattggtgat 660
 tttcggccaa accacgtggt agaaggaaca gttagagccc aacttctccg ctatacagaa 720
 gacagtgaag ggaggtgac gatggcattt aaagacctca aattagtcaa cgaccaaata 780
 atcctgggtca ccccggtaac tattgtccat gaaattgacc atgagagccc tctgtatgcc 840
 cttgacccga aagcagtagc caaagataac tttgagattt tgggtgacatt tatctatact 900
 ggtgattcca ctggaacatc tcaccaatct agaagctcct atgttccccg araaattctc 960
 tggggccata ggtttaatga tgtcttggaa gtttaagagga agtattacaa agtgaactgc 1020
 ttacagtttg aaggaagtgt ggaagtatat gccccctttt gcagtgccaa gcaattggac 1080

tggaaagacc agcagctcca catagaaaaa gcaccaccag ttcgagaatc ctgcacgtcg 1140
 gacaccaagg cgagacgaag gtcatttagt gcagttgcca ttgtcagcag ctggtgaaaa 1200
 ccctgaggag accaccactt tcgccacaca tgaatatagg gaaacacctt atcagaaagc 1260
 tctccctgac tttaaacang aatcctctgt wgaatcccaa atgttagtcc taaaattgca 1320
 attatgaggg ctaccactga atcattttat ctttcagcca atcaagtcgt tgtaaactgt 1380
 gcttttttga aagtgttatg gctatgtttt atgatgatgc tgggtaagta gagtaagtta 1440
 aacttggtaa aagataatct aaaaattcca tagttctcag ttattaaaat ttttcttggt 1500
 ccggaattc 1509

<210> 3
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:primer

<400> 3
 cctaagggca cagcaaagaa tgag 24

<210> 4
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:primer

<400> 4
 gtgtggcgaa agtgggtggtc 20